

SMARTRUCK™

...THE ARMY'S "JAMES BOND-LIKE" CONCEPT VEHICLE

Introducing the SmarTruck™...a concept vehicle designed to provide the Army with a vehicle platform to test, integrate, and showcase cutting-edge automotive technologies. The SmarTruck™ is designed to support multiple contingencies: embassy protection, counter-terrorism, personal protection, diplomatic extraction, and peacekeeping/Homeland Defense actions. This project allows the Army to insert the latest in wireless communications, situational awareness, and soldier safety technologies into its tactical wheeled vehicles. The objective is to demonstrate these technologies through electronic integration of commercially available intelligent subsystems using an SAE-approved standard data link.

Developed by the National Automotive Center in partnership with Integrated Concepts & Research Corporation (ICRC), MSX International and others.

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NATIONAL AUTOMOTIVE CENTER

SMARTRUCK™

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How will the Army modernize and equip its fleet
of light tactical vehicles in the future?

What kind of equipment will soldiers use to
become more responsive, deployable and agile?

Will technologies currently under development
by the National Automotive Center and its
partners be equally effective in "other than war"
encounters?

ARMY PARTNERSHIPS IN MOTION



NAC

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Bulletproof Glass - International Armoring Corporation
All glass is designed to withstand small arms fire up to and including a .44 magnum.

Vehicle Build - MSX International
This modified Ford F-350 pickup truck has new body styling and part fabrication as seen on the front and rear fascia, center exhaust, ground effects, styled side panels, and wheel wells on the exterior. The interior features a customized dash, console, rear sliding seats, and crawl space to allow access to the weapon systems.

Touch Screens
There are three touch screens on the SmarTruck™. They allow access to all countermeasures (disorienting lights, high voltage door handles, oil slicks, etc.) and the night vision system. Access is controlled by the fingerprint identification units.

ECLIPSE Commander - Fujitsu Ten Corporation of America
This replaces the existing radio on the dashboard. It plays DVD briefings or movies on the mobile video system, and voice controls radio, cell phone, power windows and doors.

Truck PC - DriverTech
Located in the center console, the Truck PC uses a touch screen monitor to display maps. Vehicle-to-vehicle communication and load management features are included on the Truck PC.

Disorienting Lights - ICRC
There are two pairs of disorienting lights on the SmarTruck™: one pair on the front grill; the second, in the back of the vehicle. The lights are so bright that the enemy cannot look directly at the vehicle or pursue it any further. They are activated and controlled (the front pair can pan and tilt) from the touch screens.

Pepper Spray Dispensers - ICRC
Pepper spray dispensers, one in each outside corner of the cab, are controlled by the touch screens. They are capable of propelling the spray a distance of up to 12 feet.

High Voltage Door Handles - ICRC
There are four high voltage door handles located on the vehicle – one on each of the four doors. When activated, the door handles maintain a voltage high enough to temporarily stun an intruder.

Lightweight Armor - International Armoring Corporation
Ultra-lightweight armor covers the entire vehicle except for the floorboards. Kevlar is used to create the armoring that is significantly lighter than other armoring materials and can withstand small arms fire up to and including a .44 magnum.

Mobile Video System - Audiovox
There are three mobile video monitors; one flip-down monitor in the overhead console and one on each headrest of the front seats. The system has full "entertainment center" capabilities and can display DVD movies and briefings played on the ECLIPSE Commander. The overhead monitor can also display the images captured by the Night Vision system.

Night Vision - Raytheon
The Night Vision camera rises out of the cab of the truck through a sliding door. The camera is controlled by the touch screens. It can pan 360 degrees, capturing images to display on the mobile video system.

Remote Control Weapons Station
International Armoring Corporation
Rear bucket seats in the SmarTruck™ slide to the center of the vehicle so the weapons control station can be accessed. The weapon rises out of the top of the cab through sliding doors at a push of the button on the rear console. Four cameras surrounding the weapon capture video that is shown on the quad display on the center of the console. A camera on the top of the weapon focuses on the target. The weapon can pan and tilt nearly 360 degrees. This action is controlled with a joystick; firing is controlled with a button.

Explosion Detection - Suppress X-S
In the event of fuel ignition by spark, open fire, or projectile, heat is reduced with such high speed that burning is decelerated and high temperature and pressure are unattainable, thus, preventing an explosion.

Smoke Screen - ICRC
This countermeasure is activated by the touch screens. Smoke is pumped out of the exhaust pipe to disorient pursuers.

Oil Slicks - ICRC
Oil slicks are also operated by the touch screens. When activated, the oil from the reservoir is sent through dispensing pipes located at the rear of the vehicle which disperse the oil through several holes. This creates a very slippery surface for pursuers.

Bomb Detection - ICRC
This equipment detects disturbances in the magnetic field of the vehicle. If someone were to place an item such as a bomb under the SmarTruck™, a light in the dash would blink, warning the driver of the disturbance.

Tack Dispenser - ICRC
The tack dispenser is located near the rear axle of the vehicle. The tacks are designed to always hit the ground with one sharp point in the upright position to damage pursuers' tires. Deployment is controlled through the touch screens.

Vehicle PC - Valde Technologies, LLC
This ruggedized on-board PC is an event recorder – much like the "black box" of an airplane. It can be attached to cameras that record outside activity with the weapons control station cameras.

Fingerprint Identification - AuthenTec, Inc. and Biocentric Solutions Incorporated
The SmarTruck™ has three fingerprint identification modules, all located near a touch screen display. Passengers cannot access a touch screen display unless he or she is authorized to do so by a fingerprint verification.

